DOCUMENT RESUME

ED 074 060 SP 006 289

AUTHOR Stambler, Moses
TITLE Models of Structures and Strategies for Teacher Education in Developing Nations.
PUB DATE 15 Sep 69
NOTE 62p.; Paper presented at Regional Conference for Special Study of Teacher Education in Southeast Asia, Bangkok, Thailand, Sept. 15, 1969

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Conceptual Schemes; *Developing Nations; *Educational Improvement; *Educational Problems; Models; *Teacher Education
IDENTIFIERS *ASIA

ABSTRACT

This document presents two stages of a three-stage model dealing with teacher education problems in Asia. The third stage of the model, "Implementation," is not discussed since it requires field work experience and feedback. Stage I, "Understanding the Problem," concerns the specifications and objectives of teacher education, problems impending the achievement of objectives, and the securement of data relevant to the improvement of teacher education. Stage II discusses the models of strategies and structures to achieve target specification and objectives and to overcome problems. Emphasis is placed on broad as well as specific strategies and structures. (A 39-item bibliography is included.) (MJM)

FILMED FROM BEST AVAILABLE COPY

ED 074060

MODELS OF STRUCTURES AND STRATEGIES FOR TEACHER EDUCATION IN DEVELOPING NATIONS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

Presented at the
Regional Conference
for
Special Study of Teacher Education
in Southeast Asia - Bangkok, Thailand

September 15, 1969

Dr. Moses Stambler
Southern Connecticut
State College
501 Crescent Street
New Haven, Conn. 06515
U. S. A.

SP 006 289

OUTLINE

MODELS OF STRUCTURES AND STRATEGIES FOR IMPROVING TEACHER EDUCATION IN DEVELOPING NATIONS

INTRODUCTION

STAGE I - UNDERSTANDING THE PROBLEM

A. SPECIFICATIONS AND OBJECTIVES OF TEACHER EDUCATION

1. PROBLEMS AND BROAD OBJECTIVES
2. OBJECTIVES AND SPECIFICATIONS

   a. MORE TEACHERS
   b. BETTER QUALIFIED TEACHERS
   c. MANPOWER REQUIREMENTS
   d. NATIONALISM

B. PROBLEMS IMPEDING THE ACHIEVEMENT OF OBJECTIVES

1. GENERAL PROBLEMS
2. PROBLEMS OF A DUAL SYSTEM
3. PROBLEMS OF A TRADITIONAL SOCIETY

C. SECURING DATA RELEVANT FOR IMPROVING TEACHER EDUCATION

1. INTRODUCTION
2. MODEL ON "THE COMPOSITION AND STRUCTURE OF THE TEACHING FORCE"
3. MODEL ON "IMPROVING TEACHER PRODUCTIVITY"
4. UNESCO MODEL ON "RESEARCH QUESTIONS"

STAGE II - MODELS OF STRATEGIES AND STRUCTURES TO ACHIEVE TARGET SPECIFICATION AND OBJECTIVES, AND TO OVERCOME PROBLEMS

A. BROAD STRATEGIES AND STRUCTURES

B. SPECIFIC STRATEGIES AND STRUCTURES

1. COMPREHENSIVE PLANNING OR AD HOC EMERGENCY APPROACH
2. UNITARY SYSTEM
3. RESEARCH
4. PRE-SERVICE PROGRAMS AND TEACHING FACULTY
5. IN-SERVICE COURSES

CONCLUSION

INTRODUCTION

I feel somewhat close to the problems of Asia and developing nations because of my interest in comparative education, 12 months prior residence in Japan, and experiences as a social studies advisor in Nigeria. In this paper, I have intentionally attempted to have those intimately involved in the problems of Asia speak for themselves by providing extensive quotations from their works.

Much time, effort and energy have already been spent by others researching teacher education in perspective of Asian needs. In looking through the literature, I have come across numerous reports from conferences and teams dealing with educational problems in general and teacher education issues in particular. (From an outsider's perspective, it would seem to me that significant advances are discernable, although without a doubt, the problems remain staggering.)

In this paper, I will be concerned primarily with the structure and strategy of teacher education in Southeast Asia. Despite the limited nature of this focus, the intimate organic relationship between teacher education and the educational operation as a whole cannot be overlooked. Neither can one realistically ignore the fact that education is not an end in itself, but a means to more comprehensive ends, such as industrialization and modernization, essential for survival in the space age. What might therefore appear to educators as end goals of education, might really be goals that enable us to move towards the broader objectives of society.

Though there are no magical formulas of long range strategy or structural overhaul for improving teacher education in Asia or anywhere else, I suggest that there might be structural and strategy changes that could provide a more effective organization of human resources to deal with the problems of teacher education.

The approach I use is related to a scientific method of problem solving. I have suggested a model of three stages to deal with teacher education problems. In this paper, because the third, "Implementation" requires field work experience and feed-back, only the first two stages are explored. The objective of developing a model to deal with teacher education problems is to focus dialogue and creativity in clearly drawn rational explorations. Since I have assumed that the full creative potential of Asian educators is not being utilized in dealing with educational problems, my strategy is to suggest processes and models for further liberating this potential. I must admit to a basic bias that problem solving, though dependent on and limited by available physical resources, often has its parameters set by the way individuals perceive and organize themselves to deal with problems.[1] The models are being merely suggested and in no way pretend to be definitive and final.

I have tried to follow two of the three stages of this model in the outline of this paper, and have also proposed models in different parts of this paper.

PROPOSED MODEL

STAGE I - UNDERSTANDING THE PROBLEM

A. What are the target specifications and objectives of teacher education?

B. What problems and situations impede the realization of these specifications and objectives?

C. What data is needed to fully understand our problem?

1. What sources should we use?
2. What is this data and into what categories should it be organized?
3. What generalizations and projections can we make from this data which would help us better understand our problem?

STAGE II - MODELS OF STRUCTURES AND STRATEGIES TO ACHIEVE TARGET SPECIFICATION AND OBJECTIVES AND OVERCOME PROBLEMS

A. What types of specific strategies would help us overcome the problems and achieve our objectives?

B. What types of organizational structural changes would help us overcome the problems and achieve our objectives?

C. What modifications should we make in our target specifications and in our objectives?

STAGE III - STEPS FOR IMPLEMENTATION (Not dealt with in this paper)

A. Pre-Check - What changes in previously considered specifications, objectives and models should be made at this time?

B. Actual implementation of plan

C. Evaluation

1. How effective was the plan in meeting designated specifications and objectives? Why?
2. On the basis of experience, what modifications should we make in our specifications and objectives? Why?
3. On the basis of experience, what changes should be made in the strategies and structures used to achieve our objectives? Why?
4. What changes should be made in this model? Why?

We now proceed to adopt the above model as an analytical tool to explore the problem of developing structures and strategies to improve teacher education in developing nations.

STAGE I - UNDERSTANDING THE PROBLEM

A. SPECIFICATIONS AND OBJECTIVES OF TEACHER EDUCATION

1. PROBLEMS AND BROAD OBJECTIVES

A number of the target specifications and broad educational objectives for teacher education are directly related to what Asians

perceive as the problems and obstacles to be overcome. Carlos Romulo has related the educational crisis in Asia to four fundamental problems:

> First is the lack of resources, the tremendous financial poverty. Matching finance with needs is truly a depressing task. Secondly, there is a lack of trained manpower: of teachers, educational administrators, and other professionals needed to improve the quality of education. There is thirdly the problem of quality, which suffers from the explosion of numbers resulting from population and enrollment increases. Asian planners are very conscious of it as they confront the difficult choice between expansion of opportunities and improvement in quality. The fourth problem is caused by the pursuit of modernization. Asians have to build science and technological education to create specialists, especially the middle-level workers, the technicians. The problem of modernization, of converting knowledge into action, is not easily solved when dealing with old, resilient customs and traditions.[2]

Some of the broader objectives Asian education should undertake were indicated by ministers of education meeting in Tokyo and later Bangkok. According to a Unesco report, these were:

1. The need for balanced development of education at all levels, with the expansion of secondary and higher levels being determined by the ability of pupils, availability of financial resources and manpower requirements of the country.

2. The importance of qualitative considerations for development. The need for achieving higher standards at the second and third levels is imperative. Even at the primary level the maintenance of proper standards in order to prevent wastage and to provide a satisfactory basis for the higher level is essential.

3. The need for diversification of education by enlarging and strengthening vocational and technical education at the second and third levels in line with the developing capacity of the economy to utilize trained skills.

4. Expansion and improvement of science education at all levels.

5. Promotion of programs of adult and youth and family education as an integral part of over-all educational development.

6. Development of education should reflect the principle of equality of educational opportunity and the promotion of international peace and amity.[3]

2. OBJECTIVES AND SPECIFICATIONS

a. More teachers

A key objective of Asian education is to increase the quantity of available teachers for essentially the same reasons suggested for the department of teacher training in Thailand,

> (1) to cope with the expansion of education due to the population increase, (2) to satisfy the increasing desires of people to have their children remain in school longer, (3) to compensate for the loss of teachers through retirement and death, (4) and to support the national economic development plan.[4]

This objective has been accelerated by the Karachi Plan of Compulsory Education, decided on in 1960, by Asian members of Unesco meeting in Karachi. The plan calls for free compulsory primary education of seven years duration by the year 1980 in the 15 Asian member nations (except for Japan which has already achieved this goal).

A major problem for teacher education, associated with this goal, is that of securing enough personnel. With a ratio of 35 students per teacher, Benjamin Duke[5] suggests that staffing needs for the first seven grades of Asian primary schools will require an increase in teachers from 1.8 million in 1960, to 6.7 million in 1980, a 268% growth. Teacher trainers will have to be increased from approximately 19,000 in 1955, to 142,000 in 1980. The Karachi plan also poses another major problem for teacher education. If this plan for mass elementary education is introduced by 1980, the experience of educational expansion in the west would suggest that there would be continued pressure for an upward expansion of

free compulsory education. Even partial success of this plan would therefore pose a staffing problem for the secondary level of education, and there too, an increase would be required in the quantity and quality of teachers. This in turn would put increased pressure on the staffing situation at teacher education institutions.

A Unesco model, based on a projection of relevant variables, indicates that between 1964 and 1980 teachers for first level (I-VII) schools in Asia will have to increase by an average of 83%. Teacher training output for this level will have to be approximately 437,000 per year. The model projection for the second level (VIII-XII) will require a teacher increase of 195% while the third level (XIII) would require an increase in 200% over the period.[6]

b. Better Qualified Teachers

Concern for the improvement of teacher education in Asia refers not only to an increase in quantity of teachers but also to an increase in quality. As Unesco and the International Association of Universities (IAU) suggested,

> "In order to raise the quality of education and enable it to satisfy social and cultural aspirations, not only must many teachers be trained, but the quality of teacher education and training must be greatly improved and a fair proportion of teachers at the various levels will need to acquire more than the stipulated minimum qualifications, which sometimes rise little above the level for which the teacher is to be employed."[7]

Participants at the Conference of Ministers of Education involved in the Karachi Plan, convened by UNESCO in Tokyo in 1962, are reported also to have expressed concern about the quantitative increase of students under the Karachi Plan resulting in a reduction of educational quality.[8]

One of the problems posed by pressure to improve the qualifications and output of teachers is the moving type target presented by a rapidly changing modernizing society. Instead of being able to state that once a teacher has reached a certain point, he is qualified, we now have the problem of developing an attitude and structure whereby continued change and upgrading of teacher qualifications is accepted by the teacher. Most teachers have great difficulty in personally keeping up with this change, and therefore will have even greater difficulty in interpreting this change and modernization process to their students.

The problem of qualifications for Western teachers is, in most cases, one of keeping us with the mechanics of this change. The problem of qualifications for many Asian teachers also includes a wrenching psychological readjustment. As Brian Holmes indicates,

> The point is that at present too few practising teachers are able either to contribute to the production of scientists and technologists or to interpret for their pupils - at least in understandable terms - the modern world. Indeed, it might be argued that without an adequate background in the natural sciences no teacher is able to make much sense of this world. Any policy designed to furnish enough teachers regardless of the adequacy of their scientific background seems fraught with long-term dangers.
>
> In the less economically advanced countries this problem is perhaps less acute. The skills which served the teacher well in the past may serve him well to-day in Africa and Asia. That is to say, simple literacy remains one of the major objectives of school systems there. It is apparent, however, that scientists and technologists in increasing numbers are needed, and that as the subsistence-agricultural nature of the economy of these countries changes the demand will increase. Politically, however, the need for teachers capable of interpreting the modern world is already apparent. Democratic institutions and mass media of communication have thrown special responsibilities on teachers everywhere. The nature of the shortage of 'qualified' teachers is, nevertheless, somewhat different from that being experienced in Europe, North America, and other parts of the world.[9]

How high a qualification should we strive for? Decision-making on how much training a teacher should have must take into account not only what is ideally desirable, but also the amount of teacher drain that would result if teachers secure more advanced education but salaries do not provide adequate holding and competitive power. If the educational level of a teacher is pushed higher and the salary remains low, schools become involved and often lose out in competitive pressure with other societal institutions for this better trained individual. Sloan Wayland suggests that society should,

> ...provide as high a level of education for its teachers as it can afford without, at the same time, opening up too many opportunities and pressures for non-school employment.[10]

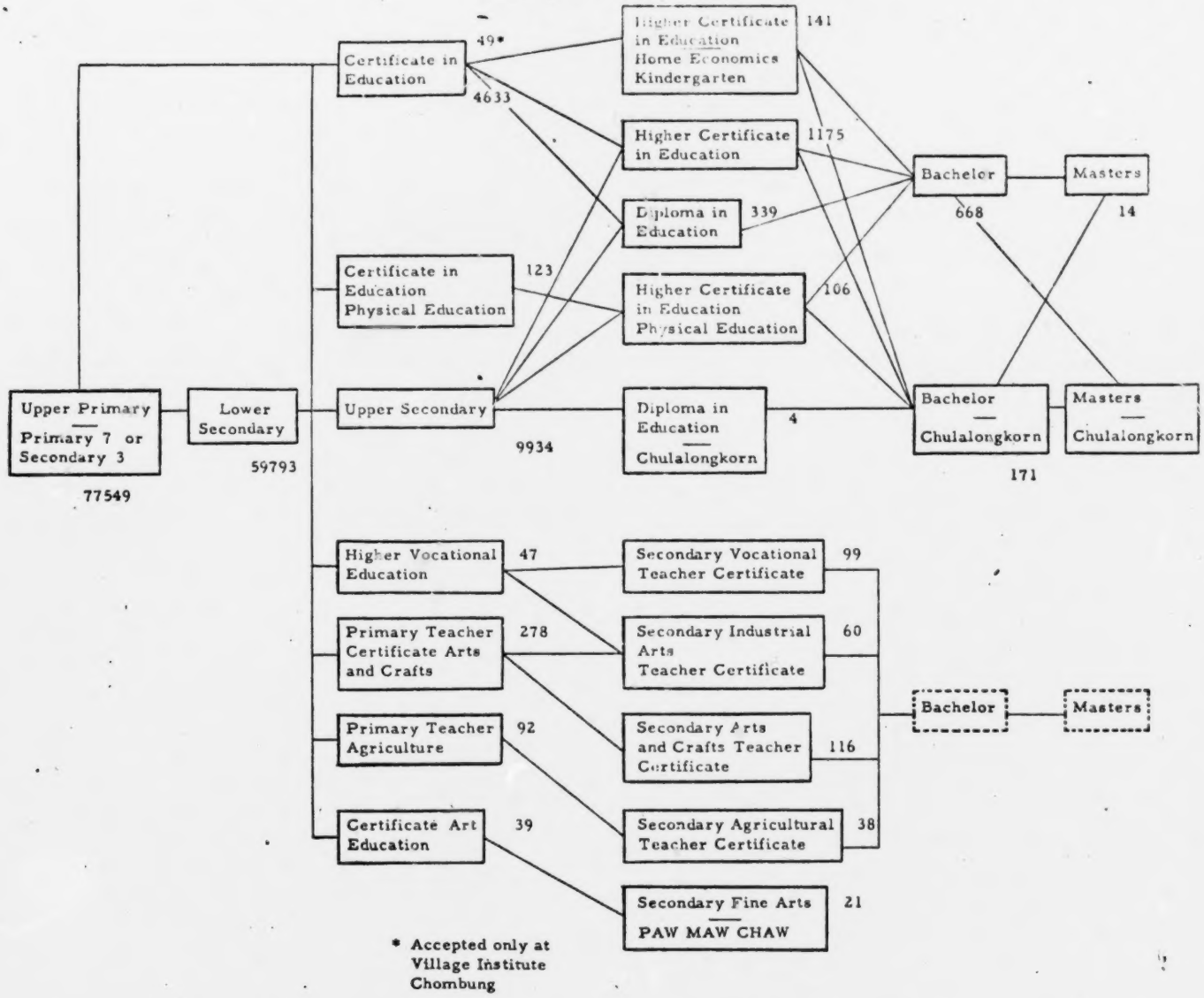
Data on present conditions in Southeast Asia would suggest that traditional qualification criteria for teachers are not being met. Unesco claims that except for the Philippines, the proportion of insufficiently qualified teachers is high for all countries in Southeast Asia. In Burma, 1960 government statistics indicate that more than 85% of those in teaching were insufficiently qualified. This high percentage included a little more than 11% - those who had a university degree but no teaching qualifications. In Indonesia, estimates for 1960 suggest that approximately 76% of the senior secondary school teachers were not fully qualified. In Thailand, during the early 1960's, less than one-half of teachers in the secondary schools met the qualifications for the positions they held. In Cambodia, until recently, training for teachers was available only for teaching in the lower secondary level. Approximately 30% of all secondary teachers were

expatriates from France. In Malaysia, in 1962, there was a shortage of approximately 1,000 university graduated teachers to staff positions for the two pre-university year education.[11] A flow chart of recent graduates of educational institutions in Thailand illustrates this problem of low level qualifications for people in the profession (see Item 1). Qualifications are being upgraded however as indicated in the following "Items" on teacher qualifications in Thailand between 1958 and 1962 (see Items 2 and 3).

The Unesco Model for Educational Development suggests a continued change and upgrading of qualifications between 1964-1980,

> ...in the educational qualifications of the teaching force to a continuously rising level linked appropriately to salary incentives.
>
> It is envisaged that the teachers for the first level of education will be prepared mainly in the teacher-training institutions and for the second level in university institutions.[12]

ITEM #1



TEACHING FORCE - Flow of Graduates through various Educational Institutions, 1961

shows the ways in which prospective teachers received education towards teacher certification. The flow of students through the system is indicated. It is obvious that most teachers who receive any formal education in order to become teachers are graduated on the lowest certification level. Many graduate with either the higher certificate or diploma and a few graduate with a Bachelor's degree. Only a few students graduate with the Master's degree.

Source: Joint Thai-U.S. Task Force on Resource Development in Thailand, Preliminary Assessment of Education and Human Resources in Thailand, (Thialand?), Report of the Joint Thai-USOM Human Resources Study, (1963?), xerox copy from p.296 and p. 263

ITEM #2

TEACHING FORCE

Number of Teachers in Teacher Training Institutes
Under the
Department of Teacher Training
Classified According to Qualifications

QUALIFICATIONS	ACADEMIC YEAR				
	1958	1959	1960	1961	1962
Doctorate and Master Degrees	88	152	187	231	267
Bachelor Degrees	385	611	803	839	980
Below Bachelor Degrees	674	714	689	646	576
TOTAL	1,147	1,477	1,684	1,716	1,823

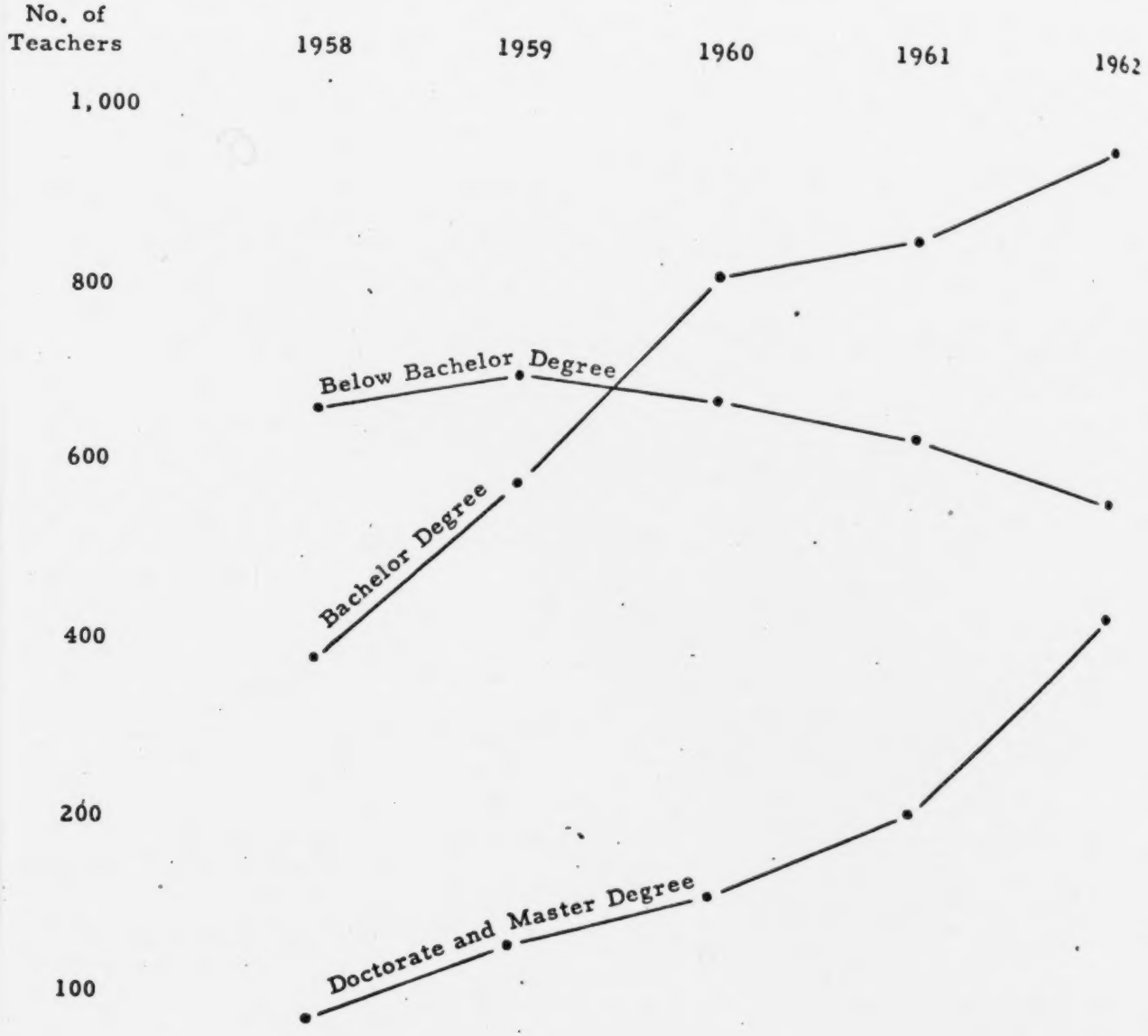
shows the increase in faculty qualifications in teacher training institutions over a period of five years. Note that the increase of faculty holding doctorates and masters has been 179 or 203 +%. The increase in the number of bachelors degree holder was 595 or 150 +%. Table 6 also indicates that the total number of teachers in teacher training institutions has increased from 1,147 to 1,823 - a total of 676 or 59%.

p 167

Source: Joint Thai-U.S. Task Force on Resource Development in Thailand, Preliminary Assessment of Education and Human Resources in Thailand, (Thailand?), Report of the Joint Thai USOM Human Resources Study, (1963?), xerox composite from pp. 264 and 280.

ITEM #3

TEACHING FORCE Qualifications of Teachers in Teacher Training Institutions under the Department of Teacher Training, 1958-1962



Source: Joint Thai-U.S. Task Force on Resource Development in Thailand, Preliminary Assessment of Education and Human Resources in Thailand, (Thailand?), Report of the Joint Thai USOM Human Resources Study, (1963?), xerox of p. 298

3. MANPOWER REQUIREMENTS

One of the more significant objectives for teacher education is to mesh the training of teachers with carefully thought through overall projections of manpower needs. Guy Hunter is concerned with this type of broader perspective in his book on High-Level Manpower Needs in South-East Asia. He suggests that there are,

> ...minimum requirements of manpower trained in modern skills to make possible substained economic growth and modernization and to provide a gradually improving health service.[13]

A key concern in this manpower production is the lack of overall balance between the output of teacher manpower and their needed input into the educational system for producing additional skilled manpower. In his book, Hunter presents specific and detailed data and analysis on manpower needs and projections which suggest the magnitude of the task involved for teacher education.

Carlos Romulo has also indicated the link between educational production and the manpower needs of society:

> ...in certain areas the schools have been only too successful in their mission. They have succeeded in meeting the demands of people, but not of the social systems; they have created a gap between society's ability to absorb the output of schools and the rate of production by the schools. The result is an 'intellectual proletariat' who become prey to all sorts of desperate influences in order to requite unfulfilled aspirations. The 'brain drain' is only one of these consequences.[14]

Van Der Kroek suggests that in a number of Asian nations, there is an evident,

> ...aversion to training in precisely those technological and applied scientific fields which would be particularly valuable to a nation in the first stages of modern economic development. Not just law and economics, but fields that are primarily characterized by what might be described as 'verbal specialization' suited to administrative, 'white-collar' and bureaucratic jobs, continue to enjoy the greater popularity (for reasons to be explained presently), and this aggravates the educated unemployment problem. In Ceylon concern has been expressed over the fact 'that the University is working outside the stream of national needs' as evidenced by

> 'the disproportionate emphasis' on the Arts curriculum, and 'the overwhelming preponderance of Arts graduates year after year' in contrast to 'the diminishing numbers of veterinary graduates. [15]

This type of failure to meet manpower needs is directly related to the need to improve vocational guidance for prospective teachers. Certainly, improvement would suggest bringing teacher education more into line with the basic national needs and limiting or expanding teacher production and manpower availability to those areas of national interest. I would agree with the suggestion that economic incentives and subsidies might well be used to expedite transfer from an over-crowded area to one where manpower is needed.

Guy Hunter has suggested hypotheses as initial guides in the structuring of manpower needs. Their adoption might well result in education of teacher manpower proceeding on a more orderly and scientific basis than at the present. He suggests that manpower priorities move in stages corresponding to those of economic growth. From a teacher education perspective, priorities in teacher training could be based on levels of national development. He notes that,

> In the early stages of development, which include all the South-East Asian countries, there will be a priority to produce relatively small number of high-quality secondary and university graduates to start the process of modernization and to replace expatriates; and this minimum must have precedence over primary education if there is competition for resources. In the next stage, when the flow of higher education is established, the economy will take some time to absorb much greater numbers, and the moment has come for the consolidation and expansion of primary education, so that the response to modernizing leadership is more active and intelligent. In the third stage the emphasis will swing back to higher levels as the economy gathers pace towards 'take off' and the requirements of technicians and technologists begin to rise steeply.[16]

I don't necessarily agree with Mr. Hunter's hypotheses but would suggest that they certainly warrant exploration and research on the basis of the Asian experience. The type of relationship he finds between stages of manpower needs and stages of educational needs might be extremely important as guides for channelizing teacher education in developing nations.

4. NATIONALISM

One basic problem for developing nations is to forge dynamic political cohesivenss and identification as a precondition for efficient and effective industrialization. They have, suggests Mr. Romulo,

> ...the problem of creating the identity and unity needed for the tasks of concerted action, particularly toward development. The diversity and pluralism of most Asian societies are the bases, not yet for unity, but for divisiveness. Most are suffering from identity crises and uncertainty about their future, which makes it difficult to have any specific consensus about specific goals and means toward goals. Under these circumstances it is not easy to use education as a tool for the mobilization of resources that development requires.[17]

I accept the proposition that one of the major objectives and specifications of teacher education should be in developing this sense of identity and identification with the national purpose, something we called 'citizenship education' in the United States. It is quite understandable and proper that where linguistic, ethnic, cultural and religious diversity threaten to tear the nation apart, high priority be given to developing a cohesive nationalistic spirit from this diversity. In the United States, the development of public education in the middle of the 19th century, our period of 'unification', was closely tied to the common school approach of uniting a nation of diverse immigrant groups. I think teacher education should include those attitudes and skills enabling them to teach so that, as Alejandro R. Roces said,

> ...the Filipino youth should be taught their own story, their own history, before those of any other country. They should be made to

> realize and remember that they are Filipinos. They should be made to know their barrio, town, province, and their country, before learning to cast their eyes away from them. They should be made Filipino nationalists before they are converted into universalists.[18]

This objective can be furthered by developing integrating teacher education curricula and assisting in the emergence of strong professional, subject-discipline focused teacher organizations. Developing nations pursuing this objective, should assist in the advance of a teaching profession which has commitment and vested interest in the cohesion and survival of the nation and transcend ethnic and geographic bounds by forging a professional basis for new loyalties.

B. PROBLEMS IMPEDING THE ACHIEVEMENT OF OBJECTIVES

1. GENERAL PROBLEMS

There are a number of problems impeding the achievement of our objectives in education and consequently in teacher education as well. There are also a number of inherent dangers, according to Carlos Romulo, if we do not resolve these problems:

> It is increasingly obvious to those who are concerned for the future of Asian education, that if present trends continue, most Asian countries face anxious times ahead. The pressures are recurrent as evidenced by the annual school crisis: the outcries for more schools, more classrooms, more teachers, textbooks, teaching aids, better salaries for teachers. The inventory of Asia's woes is familiar, and their recitation would serve no purpose other than to discourage further the pessimists among us.
>
> These pressures will have to be met head on, not in order to be resisted, but in order to be solved, through unremitting struggle with the budget committees of national parliaments or congresses, through belt-tightening in less essential areas, and through a process that the British with characteristic humor call 'muddling through.' As the revolution of rising expectations engulfs the hitherto silent and unmoving masses of Asia, as the demographic revolution adds to already swollen populations which constitute more than half of the world's population, the educational leaders of Asia may soon realize that the tiger they now have by the tail is not going to be tame for long.
>
> It is equally clear that should there be no determined effort to come to terms with the many facets of the crisis, the ultimate effects on society may not be pleasant to contemplate. Mr. Hla Myint, has warned about the possible effect of education on modernization: among other things, it may destroy indigenous initiatives for the mobilization of resources and even break down that social discipline that may have kept communities viable and vital. Hu nayun Kabir sounded much the same warning when he said that education must be reoriented to make sure that society does not 'disintegrate'. [19]

High national expenditure for development and the high cost of educational investment are also key problems limiting the achievement of our objectives. Carlos Romulo notes that:

> "...the largest industry in any country of Asia, the educational enterprise... threatens to run away with an even larger share of the country's public budget. In Asia the share of education hovers around 25%; in the Philippines, where public commitment to education has been one of the highest since the

(Continued)

beginning of this century, education claims one-third of the national budget. Continuing expansion as a result of population growth will bring Asia close to the point where an additional share of a country's income will threaten other national programs." [20]

Unesco has suggested the following inherent constraints on the scope of educational development at any particular time:

1. The first constraint is the potential for growth of an educational system, which is determined by the optimum rate at which the real resources of education, such as training and supply of teachers, school buildings, etc., can be most effectively deployed and developed. An education system is a producer of manpower and also one of its largest consumers. Its claim on the supply of manpower has to be contained within limits consistent with the needs of other sectors of the national economy.

2. The second constraint arises from the necessity of maintaining internal consistency within the education system. While the growth of enrolments on higher levels is determined by the enrolments at the lower levels, and can be quickened only to the extent that the base is enlarged, it is equally true that expansion at the lower levels in turn must depend on the output of teachers from the higher levels.

3. The third constraint is presented by the scarcity of financial resources. Though all too familiar, it is least amenable to precise formulation. There is no norm that can be derived, with any measure of confidence, from the experience of other countries to set the upper limit of investment in education though at the lower reaches the correlation between a low rate of investment in education and a low level of economic development is well established. However, even with a wide range of decisions in regard to levels of investment in education, the operation of this constraint is decisive and underlines the need for carefully examining how the resources should be distributed internally between different levels and fields of study and between qualitative improvement and quantitive expansion to give the optimum returns in terms of over-all national development objectives.

4. The fourth constraint consists in barriers to education which have their origin in deeply entrenched social attitudes, for example, in spreading

girls' education, or arise from other circumstances, for example, multi-language situation in a country which presents major problems in the provision of teachers and textbooks.21

2. PROBLEMS OF A DUAL SYSTEM

A major problem impeding the realization of our specifications and objectives is the dual pattern of teacher education. Under this pattern, the education of elementary school teachers takes place in institutions separate and distinct from those which educate secondary school teachers. Whether these elementary teacher training institutions go under the name of normal school, pedagogical institute or training college, they differ little in the standards of training they provide, which is at or slightly higher than the level of secondary education plus some general education and pedagogical training. The training for secondary teachers on the other hand is often given at universities where advance liberal training is provided with the addition of some professional training. This dual system of teacher training is based essentially on the old European distinction between education for the masses- elementary education of a terminal nature, and education for the classes- secondary education of a college preparatory nature. 22

This anachronistic dual approach which affects both student placement and teacher training is currently and painfully being modified in England, France and other West European nations because it does not effectively meet the needs of modern society. It would indeed be unfortunate if the developing nations of Asia were to bind themselves to the outdated dual approach on the assumption that the historical pattern of educational development in Europe is a logical and step-by-step process necessary for modernization. Because, on the contrary, many European nations have been deciding that dual teacher education is an impediment to modernizing the educational institution.

Carlos Romulo recognizes the dangers of copying this dual system. He notes:

> ...major outputs into the educational systems of most Asian Nations come from abroad, particularly from those countries that were once their colonial rulers...In most cases, however, the educational institutions in the West were not designed for conditions in today's societies. In transplanting the forms and substances of Western educational institutions into Asian culture, colonial regimes planted the seeds of present-day disfunctions. In most Asian countries these negative effects are long-lasting.[23]

The differences presented by a dual system of teacher education are evident not only in the methods of training provided, but often may differ in the following areas as well: financial and administrative control, forms of academic control, relationship with the compulsory education system, position in the pattern of higher education, methods of recruiting, formal entry requirements, certification procedures at the end of the course, and qualifications of teacher educators.[24] In the dual system, teachers for elementary schools are often products of the elementary schools topped off only by normal school teacher education. Teachers for the secondary schools are secondary school and university graduates and return to their secondary school launching platforms.

The dual system provides very few points of contact between elementary and secondary school teachers- each part has its own clientele, recruits its staff and students from different socio-economic groups, has its own attitudes and theories about education and has its own status position. Because of this supporting structure of intertwined and evidently gratifying relationships of people tied to the status quo, it is extremely difficult to bring about changes in this dual principle of teacher education.

The division of the teacher education enterprise into separate and non-crossing nor transferable tracks, results in a number of dead ends for teachers, tends to discourage able people from improving their education and background, and discourages dynamic people from moving into the profession. In the relationships between primary and secondary teachers, primary school teachers are often regarded as inferior to secondary school teachers, generally do have inferior academic qualifications and training, and generally have lower salaries and status in the community. This dichotomy in developing nations is also visible in the relationship between secondary schools (or universities where applicable) and teacher training colleges: teacher colleges training primary teachers are often considered inferior to secondary schools (or universities); the quality of their students is often viewed as inferior in social status and academically to those of secondary schools (or universities); and, the opportunity of these primary teachers to improve themselves academically and professionally is often limited because university training is closed even for those who want to go ahead for advanced degrees. In reality, teacher training colleges are dead ends for many of those who aspire to move on to higher education.[25]

This dual system is also reflected in patterns of control, where governments often regard primary teacher education as their responsibility but the education of secondary school teachers as the responsibility of the university. This results in a lack of concentrated and coordinated effort to deal with teacher educational problems in some unified, focused way where energies can be best utilized.

3. PROBLEMS OF A TRADITIONAL SOCIETY

Another problem impeding the reaching of objectives and the meeting of target specifications is the general nature of tradition-oriented Asian society. In many case

the problems of modernizing education are so vast, new, rapidly moving and changing, that philosophical approaches which are less than pragmatic have great difficulty in providing modern leads and guidelines. We have in the United States, by far a most pragmatic, and some would suggest chaotic, educational system, but we too have great difficulty in keeping up with the rapid pace of change taking place in the modern world. Certainly, the recent moon landing will bring about enormous institutional changes which we have only begun to perceive. European society had three centuries during which the cataclysmic Renaissance, Reformation, scientific revolution, Industrial Revolution and democratic, nationalist and liberal revolutions took place. We in the West have yet to emerge from these uprooting experiences. Asian society is being asked to compress similar experiences into a short two or three generation period, and to put it mildly, it is most difficult.

I think it is a matter of delicate balance to maintain the authority pattern necessary to keep society cohesive, but yet develop the freedom and flexibility for creative innovation in education so necessary for modern development. It is a political problem we in the West have wrestled with from the time that Prometheus disobeyed his Gods and Abraham challenged his Yehovah, and we still are seeking the correct balance. It is a problem Asia is wrestling with today. Characteristic of some of the descriptions of the Asian problems of change and continuity are the following statements from an author dealing with educational developments in Asia:

> The deference invariably accorded in academic circles by the younger to the older and by those with less status to those with more is so marked that it does not need to be pointed out by...themselves, although some of the faculty cannot forbear to do so. 'Did you notice,' I was asked by a junior member of a neighboring national delegation to an international conference, 'that no member of the contingent was willing to express himself at all on this issue until Prince S. had stated his viewpoint? Once it was clear which way the wind was blowing, they were quite willing either to give their support or even to express dissident opinions, depending, I suppose, upon what place they occupy

in the academic hierarchy.' This particular restraining influence upon constructive change is not, of course, confined to...(Asia)

The students also, of course, are involved in the same dilemma--on the one hand, of customary and sentimental attachments to the old order of educational procedures, which they have known from early childhood, and, on the other hand, of attraction to the new practical skills and techniques promised by Western educational procedures. One sees students struggling to record in their notes as accurately as possible the exact words that the professor utters and then at examination time striving just as valiantly to reproduce from memory what they have previously recorded. It is not, of course, that this is unique to....Southeast Asia, but the system of rote learning at the college level appears even to the scholars of the region to be more deeply entrenched in the habits of both students and professors alike than it is in the West, and the older generation of scholars is by no means convinced that this is a serious handicap.

Increasingly the conflict between traditionalism and utilitarianism in higher education...is being resolved by slow and sometimes imperceptible shifts in the direction of the latter. Not that there has been or is likely soon to occur any drastic or revolutionary changes in educational philosophy or methods, for...even revolutions occur with due regard to proper form and appearance. Nevertheless, professional educators, students, and the educated public are being compelled to take account of pressing practical problems for the solution of which higher education in one form or another must be sought. Just as pure research is a luxury which newly developed nations can rarely afford, so also the retention of hallowed traditions, as ends in themselves, becomes too costly to support in a world of extremely rapid change.[26]

C. SECURING DATA RELEVANT FOR IMPROVING TEACHER EDUCATION

1. INTRODUCTION

In order to improve teacher education, relevant descriptive and analytical data should be secured and utilized. Hopefully too, with the proper data, one can develop relevant prescriptive measures. In gathering necessary data, I would suggest the use of persistent questions and categories of information for transferable models regarding analysis, discussion, and proposed remediation. The persistent questions and categories provide a common focus on problems, a common language for research usage and a comparative crucible for testing proposed solutions. Much data has already been gathered and compiled regarding teacher education in Southeast Asia and there is little need for repetition in this paper. However, there would be value in developing transferable categories for data gathering and persistent means of focusing and communicating this data. I would therefore like to present organizations for data gathering which could have relevance for improving teacher education in Southeast Asia if they serve as the basis for a strategy of meaningful discussion. The first organization is by the Joint-Thai USOM Team and deals with "The Composition and Structure of the Teaching Force." The second is by the same team and refers to "Improving Teacher Productivity." The third is a Unesco model on "Research Questions" relevant for improving teacher education. In the outline for this paper, I have suggested the model I have used for information gathering and focus. I think a major strategy for improving teacher education might well be the development of a persistent model for questions and information on improving teacher education.

2. MODEL ON "THE COMPOSITION AND STRUCTURE OF THE TEACHING FORCE" [27]

1. The present size of the teaching force by educational levels:
   a. Primary education.
   b. Secondary education.
      (1) Academic stream.
      (2) Vocational stream.
   c. University and other higher education.
      (1) Major academic streams.
      (2) Vocational and professional programs.

2. The male-female ratio:
   a. At different educational levels, academic programs and vocational streams.
   b. In comparison with the male-female ratios of the student population at similar levels.

3. The size of the teaching force by different educational levels, viewed longitudinally from 1950.

4. The size of the teaching force by different educational levels, projected to the target date, taking into account:
   a. Losses through death, retirement or other reasons.
   b. Expected new inputs.

5. The loss ratios of teachers at different educational levels.

6. Actual service length of teachers at different levels of education - by sex.

7. The main sources of teacher supply and numbers for selected years by:
   a. Type of institution.
   b. Level of instruction.

8. The input-output ratios of each teacher training institution.

9. The percentage of teacher education graduates who actually enter the teaching profession:
   a. By training institution.
   b. By level of instruction.

10. The capacity of in-service training facilities for teachers by levels of education.

11. The percentage of use of in-service facilities using 100 as maximum.

12. The work load of teachers by different educational levels for:
   a. Number of days taught per year.
   b. Hours per school day.
   c. Number of students.
   d. Other instructional or non-instructional responsibilities.
   e. In-service responsibilities.

13. The academic preparation of teachers at different educational levels in terms of:
    a. Number of years' training, and kind.
    b. Degrees, certificates, or diplomas.

14. The ratio of unqualified to qualified teachers at different levels of education.

15. In terms of the production of teachers:
    a. How many university graduates does it take to produce one university teacher?
    b. How many secondary graduates to produce a secondary teacher?
    c. How many elementary graduates to produce an elementary teacher?

16. How many more university graduates will be required to produce the necessary number of university teachers through the target date?

17. How many more secondary graduates will be required to produce the necessary number of secondary teachers through the target date?

18. How many more elementary and secondary graduates will be required to produce the necessary number of elementary teachers through the target date?

19. In order to raise the secondary enrollment to that anticipated by the target date how much must teacher training facilities be increased?

20. In what kind of teacher training institutions should the increase come? That is, what is the most effective way to increase the number of teachers?"

In addition to the 20 areas of questions and categories suggested by the Joint Thai-USOM Team, I would add:

1. How many pupils are on each level in the various programs?
2. How many are needed in the various programs to meet manpower needs?

3. MODEL ON "IMPROVING TEACHER PRODUCTIVITY" 28

There is need for research to secure data and develop programs on the quality of the teacher education process and the efficiency with which teacher output is produced (in terms of time and money). The following areas suggested by the Thai-USOM Team might be considered as key evaluative criteria:

Teacher Productivity:

a. Teacher holding power and turnover at all levels of instruction.
b. Teacher-pupil ratios at all levels of instruction.
c. Preparation by types of institutions, and trends.
d. Ratios of qualified to unqualified teachers at different levels.
e. Ratios of part-time to full-time teachers, especially in institutions of higher learning.
f. Trends in the quality of entrants to different types of teacher training institutions.
g. Participation trends in in-service programs.
h. Work load of teachers in terms of hours per day taught, and days per year, by levels of instruction.
i. Curriculum content of teacher education programs in terms of educational goals.
j. Teaching methods and practice related to achieving educational goals.

4. UNESCO MODEL ON "RESEARCH QUESTIONS"

The Unesco Regional Office for Research in Asia has suggested the need for research and data dealing with the following problems of teacher education. When categorized, these too could be used as persistent categories for educational research:

Teachers and training of teachers

Studies primarily administrative and supervisory in nature -

1. Studies dealing with the cost of primary education:
   a. teaching, supervision and administration
   b. per pupil cost
   c. methods of instruction
   d. sources of money - national, provincial and private
   e. investigation of the needed facilities and services for good quality education, and full development of the child.
2. Cost of teacher training, including in-service training.
3. Effectiveness of short (3 to 4 week) in-service training programs.
4. Effectiveness of general training.
5. Optimal selection of (a) in-service training participants, (b) courses.
6. Optimal ratio of supervisors to teachers.
7. Effectiveness of school administrators and supervisors in the supervision of local teachers.

8. School factors and conditions which bear upon the retention and dropping out of children.

9. Recurring problems which affect the success of teachers in one-room schools with a view to helping the teacher to do a more adequate job.

10. Needs, policies and programs of local administrators and supervisors in order to set up in-service training.

11. The role of universities in the in-service training of teachers.

12. The role of primary teachers' colleges in the in-service training of teachers.

13. The role of special centers in the in-service training of teachers.

14. Assessment of the influences of supervisors upon the effectiveness of in-service training and its purposes.

15. Does the law of diminishing returns operate in the case of efficiency of teachers in a situation where you have a long salary scale? At what stage of the time scale should in-service training be given to maintain efficiency best and foster professional growth?

16. The best in-service training for preparing school administrators.

17. Financing of in-service training - the role of the national government, local county teachers.

Studies primarily curricular and concerned with methods -

1. Effectiveness of in-service training programs. (The instrument should fit the program being analyzed and should include before and after studies - pre - and post-evaluation).
   a. content of course;
   b. performance of teacher educators;
   c. performance of participant-trainees;
   d. later follow-up of classroom practices.

2. Use of radio, TV, and correspondence courses.

3. Needed curricular helps for elementary teachers:
   a. instructional material
   b. source material
   c. instructional techniques
   d. teachers' guides

4. Projects in identifying, collecting and construction of needed instructional materials.

5. Comparative study of the secondary entrance examination in relation to its effect on primary schools.
   Evaluation of the effect
   a. on teachers and teaching;
   b. on pupils;
   c. on the curriculum;
   d. on teaching methods.

6. The determination of local needs with a view to providing in-service courses.

7. The relative importance or effectiveness of teacher training techniques.

8. The adaptability of new techniques to in-service training - programmed learning, correspondence courses, mass media with special reference to conditions in Asian countries.

*11. Effectiveness and cost of correspondence courses for in-service training.

12. Reviews of existing available research on the use of various media for in-service training (such as correspondence courses, radio, TV, programmed instruction, etc.)

Studies primarily dealing with school personnel -

1. Surveys of teachers' opinions as a guide to future in-service courses and policies.

2. Attitudes of teachers toward in-service courses.

3. Attitudes of teacher educators toward in-service courses.

4. Involving teachers in their own in-service training: the organization of school complexes.

5. Involving teachers in self-evaluation.

6. The suitability of other methods besides the lecture method.

7. Educational requirements for teacher certification.

8. Identifying and analysing the different categories of teachers:
   a. considering the levels of preparation;
   b. considering types of specialization;
   c. considering other aspects.

9. Survey of the role and status of elementary teachers and teacher educators in Asia:
   a. income;
   b. social position;
   c. expectations from the community;
   d. esteem in the community.

10. Follow-up study of the needs and problems of graduates regarding needs not well met in pre-service work.

---

* Two items intentionally omitted.

11. Pilot studies on the value of educational innovations, such as ungraded schools, programmed learning, team teaching, the new curriculum and so on.

12. Review of the existing studies of the Status of Teachers and Teacher Education (Unesco and WCOTP). To undertake a co-operative study of items necessary but not yet covered.

STAGE II. MODELS OF STRATEGIES AND STRUCTURES TO ACHIEVE TARGET SPECIFICATIONS AND OBJECTIVES, AND TO OVERCOME PROBLEMS

A. BROAD STRATEGIES AND STRUCTURES

There are a number of structures and strategic choices available in educational decision-making. Using a rational and economic criteria, decisions as to alternatives should provide a consistency and reinforcement with other choices and should be justifiable by the degree to which the realistic objectives and specifications are being advanced. Naturally, there is no one structure or strategy that is valid for all nations at all times. Rather, the stage of development and culture context of a particular nation should be taken into account when structural and strategic choices are being made.

Broad recommendations on teacher and supervisor education - some strategic and others of a more fundamental structure changing level - were made by ministers of various Southeast Asian nations. They recommended that member states:

(i) take steps to improve the conditions of service emoluments and status of teachers;

(ii) prepare long-term comprehensive and suitably phased programmes for the supply and training of teachers, the reorganization of teacher training and the progressive raising of the level of teacher qualifications;

(iii) organize in-service training of teachers in order to keep the teacher abreast with modern advances in educational theory and practice and in his own subject field, and to enable those who do not possess adequate qualifications or are untrained, to acquire needed qualifications;

(iv) evolve procedures for the selection of suitable candidates for the teaching profession and provide incentives through scholarships to attract talented candidates;

(v) provide residential teacher-training institutions with teachers under training and members of the staff living on the campus;

(iv) organize the training of teachers in close association with universities and institutions with degree-conferring status;

(vii) consider the advisability and feasibility of adopting for the training of second-level teachers a pattern in which professional training and general education are given concurrently over a period of three or four years, so that the academic

education of prospective teachers can be related more closely to their professional education and future work and a longer period be given to them for professional orientation;

(viii) recruit as supervisory personnel highly qualified persons whose competencies are utilized to up-grade the level of the teaching staff and the school programme;

(ix) include in the professional teacher-training courses training for the teaching of adults;

(x) enlist the active participation of universities in organizing and conducting in-service education of teachers through evening classes, and expanding facilities for specialized studies in education;

(xii) enlist the support of teachers' organizations in programmes of in-service education.[30]

The above recommendations, represent flexible strategies to secure agreed upon objectives. When the objectives have been modified or when the strategies have been researched and re-evaluated and found wanting, Asian educators will no doubt feel free to modify them on the basis of common performance specification.

B. SPECIFIC STRATEGIES AND STRUCTURES

1. COMPREHENSIVE PLANNING OR AD HOC EMERGENCY APPROACH?

A Unesco report suggests that efforts to meet teacher education and training problems in Southeast Asia are,

> ...generally more ad hoc than coordinated. Short-term refresher courses, in-service and sandwich training schemes, special language training courses, expansion of enrolments in education faculties and teacher-training colleges are each taken in response to specific requirements without reference to the general situation. Even research on associated educational problems tends to be compartmentalized. Among remedies applied to deal with the shortage of teachers at the secondary level have been the recruitment of teachers from abroad, waiving the need for professional qualifications, as Cambodia does in the case of graduate teachers; accelerated courses in teacher training in Cambodia and Viet-Nam effected by reducing the period of training; the suspension of full-time courses and the reduction of teacher training to in-service as is done in Singapore; or lowering the standard of recruitment, a policy adopted in Malaya to secure teachers of the national language.[31]

One can question the effectiveness of the policy of an ad hoc approach in education.

Joseph Fischer noted what he considered inadequate educational planning by two nations in Southeast Asia, Burma and Indonesia, and sought to explain this phenomena in terms of ideological assumptions and structural limitations.

> Of all the major modern developmental institutions in Southeast Asia (and in most underdeveloped countries) the least studied, the least evaluated and the least planned has been education...the contrast between the relatively great amount of planning and control of formal political and economic organizations and the comparative laissez-faire-ism that is permitted in their educational systems is remarkable. Some of the major reasons for this may be attributed to the following:
>
> the assumption among most elites (as well as in Unesco and among many economists) that education is inherently functional to rapid economic growth; and that the chief national problem is merely quantitative--providing more schools, equipment, teachers, and graduating more and more students;
> the complex and unwieldy structure of educational systems in terms of size, breadth and diversity which make them far less amenable to planning and control than other sectors of development;
> the enormously increasing and extraordinarily self-generating demand of the general population for more and more educational opportunities with resultant conflict between the desires of the individual and the resources and the goals of the state with respect to the uses of education;
> the general world-wide paucity of social science research on educational systems from which emerging nations might draw for the purpose of planning and evaluation.[32]

This need for a strategy of comprehensive long-term planning was recognized by Asian ministers when they recommended that Asian member states, among other things,

> ...prepare long-term comprehensive and suitably phased programmes for the supply and training of teachers, the reorganization of teacher training and the progressive raising of the level of teacher qualifications.[33]

This stress on planning was also indicated in a Unesco report.

> Planning for educational development as an integral part of economic and social development is beginning to establish itself in the countries of the region. Very few countries, however, have formulated long-term plans for education. The over-all objectives of educational development have therefore to be derived from their short-term plans. Again, very few countries have been able so far to include in their development plans provisions for literacy programmes and to link adult education projects with priority development schemes. Still fewer countries have up till now put such provisions into practice. Education chapters in short-term and medium-term

> development plans are still generally foreseen in the traditional way. This is due to the lack of manpower projections, to the lack of any established link with technological change of human resources, and also to traditional ways of thinking and a tendency to underestimate the importance of training for adults.[34]

In our modern world, one hears less and less about the virtues of ad hoc approaches as a strategy for dealing with educational problems.

2. UNITARY SYSTEM

In response to the growing democratization of education and the upward extension of educational opportunity, structural adjustments took place in the types of organizations training teachers. Nations operating in the more traditional vein, based on the old pattern of secondary education for the elite and elementary education for the masses, moved into the dual system of teacher training, with government direction of elementary teacher education, and university direction of secondary teacher education. In the United States however, we have developed a model of a unified system of training for teachers of all levels by associating the university with all levels of teacher training. In this unified model, teacher trainees for all levels (elementary, secondary and college) can share a common experience and develop a unifying core of professional perspectives over this common base of a four year training period. This model, which provides transferable access points at all common levels of education, is in my opinion more realistically in tune with the needs of education in a modernizing or modern society. This contemporary type of society calls for a continuous flow of trained personnel through the educational ladder with a maximum amount of flexible responses to the incentives and pressures of society, and a maximum personal motivation--identification with these needs and responses to these incentives. France and England are presently engaged in experimenting with comprehensive education on the junior high and senior

high levels. In the United States, we have developed this comprehensive type of education through the first four years of college. Under this model, all types of pre-professional and professional training are considered equally valid for the college degree and therefore equal bedfellows under the comprehensive roof of college offerings.

This type of comprehensive college and university teacher education can result in the following:

a. an enrichment of teacher education through association and utilization of discipline specialists at the colleges and universities;

b. a higher degree of societal and personal flexibility and mobility enabling students to terminate, transfer or go on for higher education;

c. less need to make ultimate decisions and mistakes at an early stage of societal or personal development. As the needs of modernization and personal interests change, students can decide to terminate or continue at any of the various steps in the educational system. Lower education would therefore serve as an early stage rather than as an inferior type of continuing education and higher education would be provided with a continuous supply of potential students. This type of unitary system can serve as a flexible supplier of changing national needs for both quantity and quality of teachers; and,

d. basic professional attitudes would be improved and the structure would provide the potential of releasing a great deal of creative energy. A great deal of university education is liberal both in content and spirit and should serve as a releasing feature enabling one to get to know oneself better and provide one with added dimensions on the human condition. This personal liberating force and professional independence of teachers can be a creative force result

ing in meaningful experimentation and innovation for greater national effectiveness.

Normal school teacher education has generally provided little of the liberating creative possibilities that are associated with the mission of the universities. In the United States, these normal schools were a costly experimental step for a society expanding educational opportunity but unable to discern or prophesy exactly where this expansion would lead. We know much more now about the personal and national advantages in educational expansion and the ways in which these can be accomplished. It is not necessary for developing nations to proceed through the same costly developmental stages that other nations did in the past in order to develop a teacher education system related to the university on all levels. T. Kobayashi indicates[35] that in pre-1947 Japan normal school type of teacher training turned out teachers who, in line with governmental objectives, were obedient to superiors. The post-war reforms reflecting the liberalizing trends brought the universities into the field of teacher training to the point where modern Japan has a comprehensive type of higher education--where university level courses are provided for both prospective elementary and secondary teachers. The objectives are no longer obedience but creative and relevant innovation, and for this type of professional, the liberal atmosphere of the university is essential.

I would suggest that Asia's key educational resource is in this creative potential of her professional educators, and the types of structure providing their education should be the universities and liberal education institutions who can utilize the full dimensions of all the faculties for the releasing of creative potential.

Unesco has recognized the need for greater university involvement in elementary education and movement towards a unified comprehensive teacher education system in Asian nations and has indicated that,

> As the level of teacher-training institutions for primary education is raised, it will be desirable to bring them into closer association with universities and institutions at the third level to insure inter-disciplinary approach in developing teacher-training programmes. This will also mark a step towards the evolution of a pattern in which teachers for different subjects and levels of education receive their education together.[36]

The Unesco Meeting of Experts to Consider Means of Improving the Quality of Education has also suggested the need for universities involved in the educational tasks of Asian nations. One of the conclusions of this meeting was that,

> The training of secondary-school teachers who will have to teach at the pre-university level should be a matter for the universities, and colleges for the training of primary-school teachers should also fall within the ultimate academic jurisdiction of the universities, which should be responsible for the trainees' final certification as teachers.[37]

This meeting suggested the need for involvement in other aspects of teacher training as well.

> Another set of special tasks for the university emerges from three current needs: (a) for periodical courses to keep teachers in touch with developments in their subjects and in methods of teaching; (b) for the re-training of the under-qualified and the further education of able teachers to attain higher qualifications; and (c) for assistance in meeting urgent teacher needs in the face of rapidly expanding enrolments.[38]

Unesco suggests the following specific strategies for upgrading involvement:

> ...universities must be involved both in the over-all national planning organization and all educational programming concerned with teacher training. Such a role may be played in different forms, but it does require a basic minimum of effective interrelationships between the universities and teacher-training colleges, post-secondary technical and vocational institutions, schools and--at least equally important--between the universities themselves. Again the mechanics may vary, but:
>
> 1. There must be a continuous channel of consultation between the various institutions.

2. Courses assisting and supplementing each institution's programme should be organized, with a consequential regulated circulation of students between various specialist courses.

3. Joint seminars and workshops should be conducted on questions of common interest.

4. Research projects should be promulgated in which maximal use is made of the potentialities of the various institutions available, particularly in the case of secondary schools, where research as such is not likely to be initiated, save perhaps by a few individual teachers.

5. Some exchange of teachers would be desirable for anything from a short series of lectures to periods of a semester or more, but preferably as part of an integrated programme involving university faculties of education, teacher-training institutions, and secondary schools.

6. Studies should be made of methods of selecting and training the staffs of training colleges preparing teachers for primary schools. This might well be a responsibility of university departments of education.

7. It would be essential to set up special joint committees, with appropriate ministerial participation, to enquire into organizational and administrative questions--particularly those dealing with problems of the movement of students between institutions--and to review the results of educational research and their application to the education system as a whole. [39]

I might also suggest that the academic program of students at teacher colleges should be so structured as to allow them to continue for university work thereby improving their competence and academic status. Otherwise, the dead end feature of teachers college work serves as an obstacle for those who wish to continue their education and improve their position.

3. RESEARCH

Unesco has suggested that, "The two most urgent needs in Asia would seem to be the development of an institutional structure for educational research, and the training of research workers."[40]

Suitable research into educational problems would be a major facilitator and strategy for achieving a number of the objectives and specifications for education in Asia. The resulting research organization could provide the professional commitment, organization and communications network to generally raise the level of teacher education and the necessary guidelines for decision-making in teacher education and feed-back for modification of current practices as the Unesco Regional Office for education in Asia suggested:

> The principal means of establishing contact with schools and teachers is through the organizing of meetings and seminars by research institutes, such activities generally being a part of the functions assigned to them. Other means of dissemination and feedback are as yet unevenly developed. Reporting of research findings in educational journals is not extensive and there are few regular periodicals which are devoted exclusively to the reporting of educational research. Some university publications relating to social sciences carry reports of educational studies also, and researches in education conducted in connection with theses are published in full or abstract form. It may be stressed here that the practical value of educational research lies in the regular reporting of research findings in language which a non-specialist in research can readily evaluate and put into use.
>
> In spite of the considerable institutional development that is taking place in the countries of the region, documentation centres for educational research have not been established. Even national institutes for educational research have not so far developed these essential clearing house services for the benefit of other research institutions or teachers and educational administrators.[41]

The Unesco report on the Asian model of educational development calls for the establishment of national agencies for research in education whose function would include:

a. identification of the main and immediate problems requiring investigation;

b. undertaking or co-operating with other institutions for research on these problems;

c. giving technical assistance to other institutions for research; and,

d. acting as a clearing house for research information and diffusion of findings.[42]

There is an evident need for a communications network and structure to maximize international assistance and regional cooperation on common problems of nations in Southeast Asia. A number of teacher education problems are similar for the nations of Southeast Asia and cooperative regional research as well as dissemination of findings should be explored.[43]

A number of regional institutes to conduct educational research were established after the Karachi Conference of 1960, and the Conference of Asian Ministers of Education at Tokyo in 1962. These included:

A. Asian Institute for Teacher Educatiors established in 1962-Quezon city in the Philippines

B. Asian Institute of Educational Planning and Administration-founded in 1962 in New Delhi

C. Asian Regional Institute for School Building Research founded in Bandung 1962 and moved to Colombo in 1966

D. National Institute of Educational Research, Japan, (Unesco assisted) Unesco Regional Office in Bangkok was established in 1962 (acts as a clearinghouse on educational information).

These developments are movements in educational research into what can well become a major strategic role for advancing teacher m education in Southeast Asia.[44]

Carlos P. Romulo has called for the development of more regional organizations to further develop and intensify the dialogue between universities and nations in the region regarding educational problems. He suggests that,

> To help these ideas along, it will be necessary to establish formal- or informal-machinery, either separately or as part of an existing world body, to facilitate the exchanges across national boundaries. To this end, an international commission of education should be established as a clearing hour and agency to offer assistance in the form of survey teams, for example, wherever such aid is needed and solicited.[45]

Mr. Romulo indicates that some start has already been made on regional cooperation for educational problems in Asia- in the form of Association of Southeast Asian Institutions of Higher Learning (AISIHL), and the Southeast Asian Ministers of Education Council -(SEAMEC)- but that more remains to be done to cope effectively with these problems.

4. PRE-SERVICE PROGRAMS AND TEACHING FACULTY

The type of training teachers are given in their professional pre-service preparation is of important significance for the development of an educational system and can serve as a vital strategy for improving teacher education. As Lionel Elvin stresses,

> It is here, and it can be only here that appropriate training can be given for the new subjects that come into the secondary-school curriculum. It is here that more modern methods of teaching must be introduced. It is here that science laboratories must be well equipped- so as to set a standard that teachers will not forget when they get into the schools. It is here that experimental work must be done with the new syllabuses, new text-books and new methods of teaching... [46]

With the recognized importance of this pre-service area, it is extremely important to have highly qualified teacher trainers. Yet,

> 1. While only rough indicators of teacher qualifications at teacher-training institutions and technical colleges are available, it appears that there is considerable need to raise standards for the first, and that in the case of the second it is extremely difficult to recruit staff who have sufficient practical experience as well as appropriate academic qualifications. [47]

It is essential according to the Unesco model, that strategies be developed to improve on the training and qualification of teadher educators:

> Of special importance in the reorganization and development of teacher training is the preparation of teacher educators to staff new training institutions. The demand in the coming years for teacher educators will put the present sources of supply under a heavy strain. Moreover, teacher educators must be in the 'first flight' of progressive educational thought and practice if teacher training institutions are to become creative centers for educational advancement. The training of teacher educators,

> therefore, should be of vital concern, and it will be necessary to establish training institutions or courses for their further training and to prepare them adequately to staff new institutions.[48]

Recognizing the vital importance of teacher training faculty, alert and aware of significant educational advances, the question of developing and maintaining this type of faculty assumes a great deal of importance.

5. IN-SERVICE COURSES

One of the major strategies for improving teacher education is the provision of adequate in-service courses for those who have already entered the profession. As a Unesco report indicated,

> New entrants to the teaching force in any year form but a small proportion of the total. For qualitative improvement the level of the whole teaching force including the teachers in service has to be progressively raised. Further education of teachers in service has therefore as high priority as pre-service training.
>
> There are broadly three types of steps to be taken: (a) to keep the teacher abreast of modern advances in educational theory and practice and in his own field of specialization; (b) to enable teachers who do not possess adequate qualifications, or are not trained, to acquire needed qualifications; and (c) to help qualified teachers to improve their qualifications further...
>
> In-service training for the purpose of keeping the teachers abreast of modern developments in subject content and methods of teaching will call for the systematic involvement of professional organizations of teachers, teacher-training institutions and institutions of higher learning in organizing vacation courses. These will need to be supplemented by a network of consultation centres for week-end and other short sessions for advice and guidance, and for making available books and other materials. It is highly desirable for every teacher to attend in-service training courses at regular intervals and recognition should be given to such training in the salary scales.[49]

According to the above report, a number of nations in Southeast Asia have already established in-service programs for teachers and there is a need for an interchange of information and experiences.

The quality of in-service programs provided are of great importance. Teachers in the field should have access to the latest ideas and methods through in-service

courses and should be called upon to make innovative contributions to these types of courses. This requires methods of interaction and communication and sharing of experiences rather than expository and "warmed-over" teaching.

Aree Sunhachawee has suggested that in-service leadership training programs for teacher educators be established in Thailand utilizing strategies that provide for:

1. democratic group participation;
2. supportative psychosocial climate;
3. effective communication;
4. a discovery approach for learning the process of problem solving;
5. necessary first-hand and community contact experience;
6. necessary resources, facilities, and time;
7. flexibility for individual differences;
8. continuing evaluation;
9. research and experimentation.[50]

CONCLUSION

I have attempted in this paper to deal with key models of structure and strategy for improving teacher education in Southeast Asia. Most of you would agree that many of your concerns in teacher education are related to the broader problems of education and the over-arching problems of developing nations. Development seldom takes place simultaneously in all components of a society and institutional lag is a very common occurence in all nations of our modern world. In developing nations, there is generally a greater degree of anachronism and clash between traditional and modern patterns. Despite this inherent institutional dichotomy in the affairs of developing nations, attempts should be made to develop some internal consistency in the operation of society. Activities of

the teacher education process should be internally consistent as well as fit in to the general educational and social context. If this is accomplished, institutional objectives can be reinforced and intensified, and the utilization of national energy can be maximized. Any strategy or structure proposed for teacher education, should take this reinforcing context into account.

In addition to consistency, a suitable structure and strategy should provide for releasing the creative potential of those within the institution. Patterns of communication, innovation, revitalization and critical evaluation can be stimulated or thwarted by the structure of an institution. Those in the educational profession should take a close look at the educational system, and attempt to devise and test structural changes or strategies for releasing Asian energies.

Asians have not yet tapped their own potential and should squarely face the key issue of providing vital models of structure and strategy for helping reach their stated objectives. A release of Asian educational potential and creativity would enrich not only Asian education, but that of the world as well.

FOOTNOTES

1. See author's article, "Educational Problems Simulation," Simulation Games and Exercises, Oregon, Oregon State System of Higher Education, 1968, op.

2. Carlos F. Romulo (with notes by Prem. N. Kirpal and Uday Shankar), "Symposium on Asian Education," George Z. Bereday, ed., Essays on World Education, New York, Oxford University Press, 1969, p. 258.

3. Final resolution and statement of the Ministers of Education at Tokyo and reaffirmed by the Conference of Ministers of Education and Ministers responsible for economic planning of Member States in Asia (Bangkok, Nov. 1965) as reported in Unesco, An Asian Model of Educational Development; Perspectives for 1965-80, Paris, Unesco, 1966, p. 21.

4. Joint Thai-U.S. Task Force on Resource Development in Thailand, Preliminary Assessment of Education and Resources in Thailand, (Thialand?), Report of the Joint Thai USOM Human Resources Study, (1963?), p. 264.

5. Benjamin Duke, "The Karachi Plan: Major Design for Compulsory Education in Asia," International Review of Education, Vol. XII, No. 1, 1966, p. 73.

6. This Unesco report goes into elaborate detail on teacher inputs and outputs Unesco, An Asian Model of Educational Development, op. cit., pp. 49-65.

7. Unesco and the International Association of Universities, (I.A.U.) Higher Education and Development in South-East Asia, V.I. Directors Report, Belgium, Unesco, 1967, p. 248.

8. Duke, op. cit., p. 77.

9. Brian Holmes, "Organization of Teacher Training," George Z. Bereday and Joseph Lauwerys, eds., The Yearbook of Education, 1963; The Education and Training of Teachers, New York, Harcourt Brace and World, 1963, pp. 123-124.

10. Sloan R. Wayland, "Socio-Economic Problems and Teacher Training," George Z. Bereday and Joseph Lauwerys, eds., Ibid., p. 376.

11. Unesco and the IAU, Higher Education...V.I., op. cit., pp. 248-249.

12. Unesco, An Asian Model for Development..., op. cit., p. 91.

13. Guy Hunter, Higher Education and Development in South-East Asia, V. III, Part I, High Level Manpower, Paris, Unesco and the International Association of Universities, 1967, p. 19.

14. Romulo, op. cit., p. 251.

15. Justus M. Van Der Kroek, "Asian Education and Unemployment: The Continuing Crisis," Comparative Education Review, Vol. 7, No. 2, Oct. 1963, p. 175.

16. Hunter, op. cit., p. 20.

17. Romulo, op. cit., p. 247.

18. From Alejandro R. Roces, "Realism in Our Educational System," Weekly Graphic, Manila, Philippines, June 6, 1962, pp. 8 and 27, as quoted in Rolando Santos, "Philippines: Language Education and Science Education," Thomas R. Murray, Lester B. Sands and Dale Bribaker, eds., Strategies for Curriculum Change, Scranton, Pa., International Textbook Co., 1968, p. 254.

19. Romulo, op. cit., p. 251-252.

20. Ibid., p. 246.

21. Unesco, An Asian Model.... op. cit., p. 25.

22. T. Kobayashi, "Comparative Perspective on Teacher Training, Illustrated by Japan and England," George Z. Bereday and Joseph Lauwerys, eds. The Yearbook of Education...., op. cit., p. 111.

23. Romulo, op. cit., p. 245.

24. Holmes, op. cit., p. 125.

25. R. Freeman Butts, "Teacher Education and Modernization," George Z. Bereday, ed., Essays on World Education, New York, Oxford University Press, 1969, pp. 111-118.

26. Andrew Lind, "Higher Education-Perspective from Southeast Asia," Teachers College-Record, Vol. 64, No. 6, March, 1963, p. 491-492.

27. Joint Thai-U.S. Task Force on Resource Development in Thailand, op. cit., p. 176-7.

28. Ibid., p. 179.

29. Unesco Regional Office for Research in Asia, Recommendations on Educational Research, Bangkok, Unesco, Regional Office for Education in Asia, 1968, n.p.

30. "Recommendations of the Conference of Ministers Responsible for Economic Planning of Member States in Asia," Convened by Unesco with the cooperation of the ACAFE, Bangkok, 22-29 Nov. 1965, as reported in Unesco, An Asian Model for Development, op. cit., p. 123.

31. Unesco and I.A.U., Higher Education and Development in South East Asia, V.I., Directors Report, op. cit., p. 251.

32. Joseph Fischer, "Education and Political Modernization in Burma and Indonesia," Comparative Education Review, Vol. 9, No. 3, Oct. 1965, pp. 282-287.

33. "Recommendations of the Conference of Ministers Responsible for Economic Planning of Member States in Asia, op. cit., p. 123.

34. Unesco, An Asian Model for Development...., op. cit., p. 22.

35. Kobayashi, op. cit., p. 115.

36. Unesco, An Asian Model for Development..., op. cit., p. 92.

37. Unesco Meeting Report, Manila, Philippines, 21-28 April 1964; Report p. 15, (Unesco/QUEDAS/8) as reported in Unesco and I.A.U., Higher Education and Development in South-East Asia, V.I., Directors Report, op. cit., p. 253-4.

38. Ibid., p. 256.

39. Ibid., p. 255.

40. Unesco, An Asian Model for Development.... op. cit., p. 94.

41. Unesco Regional Office for Education in Asia, Bulletin: Educational Research in the Asian Region, Vol. II, No. 2, March 1968, p. 96.

42. Unesco, An Asian Model of Educational Development..., op. cit., p. 94.

43. Unesco Regional Office for Education in Asia, op. cit., pp. 91-94.

44. Ibid., p. 89-90.

45. Romulo, op. cit., p. 255.

46. Lionel Elvin, "The Recruitment and Preparation of Teachers, Planning Education for Economic and Social Development, pp. 192-193; OECD, The Mediterranean Regional Project (Paris, 1962) as quoted in Unesco and I.A.U., Higher Education and Development in South-East Asia, Vol. I, Directors Report, op. cit., p. 249.

47. Unesco and I.A.U., Higher Education and Development in South-East Asia, V.I, ibid., p. 250.

48. Unesco, An Asian Model for Educational Development..., ibid., p. 92.

49. Ibid., p. 93.

50. Aree Sunhachawee, Development of Guidelines for In-Service Leadership Training Programs for the Staffs of the Teacher Education Institutions in Thialand, Based on a Study of Two Selected Institutions, an unpublished doctoral dissertation at Teachers College, Columbia University, 1963, pp. 236-241.

BIBLIOGRAPHY

Adams, Don, "The Study of Education and Social Development," Comparative Education Review, Vol. 9, No. 3, Oct. 1965, pp. 258-269.

Bebell, Clifford, "The Educational Program," Edgar Morphet and David Jesser, eds., Designing Education for the Future, New York, Citation Press, 1968, pp. 1-48.

Butts, R. Freeman, "Teacher Education and Modernization," George Z. Bereday, ed., Essays on World Education, New York, Oxford U. Press, 1969, pp. 111-132.

Calvert, Leonard, "New Experiments in Teacher Education," George Z. Bereday and Joseph Lauwerys, eds., The Yearbook of Education, 1963: The Education and Training of Teachers, New York, Harcourt Brace and World, 1963, pp. 477-479.

Duke, Benjamin. "The Karachi Plan: Major Design for Compulsory Education in Asia," International Review of Education, Vol. XII, No. 1, 1966, pp. 73-79.

Fagan, Edward R., "Extending the Roots of Indonesian Teacher Education," International Review of Education, Vol. IX, No. 3, 1963-64, pp. 278-287.

Fischer, Joseph, "Education and Political Modernization in Burma and Indonesia," Comparative Education Review, Vol. 9, No. 3, Oct. 1965, pp. 282-287.

Halpern, Joel M. and Marilyn Clark Tinsman, "Education and Nation-Building in Laos," Comparative Education Review, Vol. 10, No. 3, Oct. 1966, pp. 499-507.

Hansen, W. Lee, "Educational Plans and Teacher Supply," Comparative Education Review, Vol. 6, No. 2, Oct. 1962, pp. 136-141.

Holmes, Brian, "Organization of Teacher Training," George Z. Bereday and Joseph Lauwerys, eds., The Yearbook of Education, 1963: The Education and Training of Teachers, New York, Harcourt Brace and World, 1963, pp. 119-136.

Holmes, Brian, "Teacher Education in a Changing World," George Z. Bereday and Joseph Lauwerys, eds., The Yearbook of Education, 1963: The Education and Training of Teachers, New York, Harcourt Brace and World, 1963, pp. 1-15.

Hunter, Guy, Higher Education and Development in South-East Asia, Vol. III, Part I, High Level Manpower, Paris, Unesco and the International Association of Universities, 1967.

Joint Thai-U.S. Task Force on Resource Development in Thailand, Preliminary Assessment of Education and Human Resources in Thailand, (Thailand?), Report of the Joint Thai USOM Human Resources Study, (1963?).

Katsumi, Yausa, "Teacher Training and its Problems in Japan," International Review of Education, Vol. XIV, No. 4, 1968, pp. 479-488.

King, Edmund, "The Curriculum of British Teacher Training Courses: Analysis and Critique," The Yearbook of Education, 1963: The Education and Training of Teachers, New York, Harcourt Brace and World, 1963, pp. 102-110.

Kobayashi, T., "Comparative Perspectives on Teacher Training, Illustrated by Japan and England," George Z. Bereday and Joseph Lauwreys, eds., The Yearbook of Education, 1963: The Education and Training of Teachers, New York, Harcourt Brace and World, 1963, pp. 111-118.

Lind, Andrew, "Higher Education-Perspective From Southeast Asia," Teachers College Record, Vol. 64, No. 6, March 1963, pp. 97-101.

Nydegger, William F. and Corinne Nydegger, "Tarong: An Ilocos Barrio in the Philippines," Don Adams, ed., Introduction to Education: A Comparative Analysis, Belmont, California, Wadsworth Publishing Co., 1966, pp. 162-165.

Peshkin, Alan, "Education in the Developing Nations: Dimensions of Change," Comparative Education Review, Vol. X, No. 1, February 1966, pp. 53-66.

Rahman, A.F.M.K., "Educational Developments in Asia," International Review of Education, Vol. VIII, Nos. 3-4, 1963, pp. 257-274.

Romulo, Carlos P., (with notes by Prem N. Kirpal and Uday Shankar), "Symposium on Asian Education," George Z. Bereday, ed., Essays on World Education, New York, Oxford University Press, 1969, pp. 244-263.

Samonte, S. Quirico, "Land Tenure and Public School Enrollment in the Philippines," Comparative Education Review, Vol. 5, No. 2, Oct. 1961, pp. 126-131.

Santos, Rolando A., "Philippines: Language Education and Science Education," Thomas R. Murray, Lester B. Sands and Dale Brubaker, eds., Strategies for Curriculum Change, Scranton, Pa., International Textbook Co., 1968, pp. 253-278.

Sarumpaet, J.P. "The New Era in Indonesian Education," Comparative Education Review, Vol. VII, No. 1, June 1963, pp. 66-73.

Smythe, Hugh H. and Nibondh Sasidhorn, "Educational Planning in Thailand," Comparative Education Review, Vol. 8, No. 1, June 1964, pp. 37-40.

Shukla, Sureshachandra, "Education and Training of Teachers in India," George Z. Bereday and Joseph Lauwreys, eds., The Yearbook of Education, 1963: The Education and Training of Teachers, New York, Harcourt Brace and World, pp. 329-337.

Stambler, Moses, "Educational Problems Simulation," Simulation Games and Exercises, Oregon, Oregon State System of Higher Education, 1968.

Sunhachawee, Aree, Development of Guidelines for an In-Service Leadership Training Program for the Staffs of the Teacher Education Institutions in Thailand, Based on a Study of Two Selected Institutions, An unpublished doctoral dissertation at Teachers College, Columbia University, 1963.

Tadjoedin, Djamila, "For Indonesia"s Children," Overseas, Nov. 1961, pp. 17-19.

Thomas, R. Murray, "Indonesia: The English Language Curriculum," Thomas R. Murray, Lester B. Sands and Dale Brubaker, eds., Strategies for Curriculum Change, Scranton, Pa., International Textbook Co., 1968, pp. 279-322.

Unesco, An Asian Model of Educational Development: Perspectives for 1965-80, Paris, Unesco, 1966.

Unesco and the International Association of Universities, Higher Education and Development in South-East Asia, V.I, Directors Report, Belgium, Unesco, 1967.

Unesco and the International Association of Universities (I.A.U.), Higher Education and Development in South-East Asia, V. II, Country Profiles, Belgium Unesco, 1967.

Unesco Regional Office for Education in Asia, Bulletin: Educational Research in the Asian Region, Vol. II, No. 2, March 1968.

Unesco Regional Office for Research in Asia, Recommendations on Educational Research, Bangkok, Unesco Regional Office for Education in Asia, 1968.

Van Der Kroef, Justus M., "Asian Education and Unemployment: The Continuing Crisis," Comparative Education Review, Vol. 7, No. 2, Oct. 1963.

Venkatarangaiya, M., "The Plight of the Indian Teacher," Donald K. Adams, ed., Introduction to Education: A Comparative Analysis, Belmont, California, Wadsworth Publishing Co., 1966.

Wayland, Sloan R., "Socio-Economic Problems and Teacher Training," George Z. Bereday and Joseph Lauwreys, eds., The Yearbook of Education, 1963, The Education and Training of Teachers, New York, Harcourt Brace and World, 1963.

Wronski, Stanley P., "Thailand: Redirecting Secondary Education," Thomas R. Murray, Lester B. Sands and Dale Brubaker, eds., Strategies for Curriculum Change, Scranton, Pa., International Textbook Co., 1968, pp. 323-341.